

REMARKS

Claims 1-20 were examined in the Final Office Action mailed September 14, 2005. The Final Office Action includes:

- An objection to the drawings as failing to show the recited “hub adapter.”
- A rejection of claims 1, 3, 5, 7-11, 13, 15 and 17-20 under 35 U.S.C. § 102(e) as anticipated by the Hamperl reference (U.S. Patent Publication No. 2003/0111893 A1, which is assigned to the corporate parent of the assignee of the present Application).
- Rejections under 35 U.S.C. §103(a) of claims 2, 4, 12 and 14 as unpatentable over Hamperl, and claims 6 and 16 as unpatentable over Hamperl in view of the Iizuka reference (U.S. Patent Publication No. 2002/0029940 A1).

The following remarks address the pending rejections.

1. **The Hub Adapter Is Already Shown in the Drawings.** The Applicant respectfully requests reconsideration and withdrawal of the drawing objection, on the grounds that the recited hub adapter is illustrated in original Fig. 1.

As recited in the claims, the hub adapter “is arranged to receive the hub portion of the rotor and is disposed on the axle hub such that the rotor is axially inboard when a wheel rim is mounted on the axle hub.” Element 6 in Fig. 1 is an example of the recited hub adapter. As noted in the Specification at ¶ [0020]: “Bearings 5 ... rotatably support a specialized hub member 6 ... formed in this embodiment with a flange portion 7 with an outboard face adapted to receive a brake rotor 8 of brake disc assembly 1.” Thus, element 6 “is arranged to receive the hub portion of the rotor” (on flange 7); element 6 “is disposed on the axle hub”; and element 6 is disposed on the axle hub “such that the rotor is axially inboard when a

wheel rim is mounted on the axle hub (flange 7 and rotor 8 shown inboard of axle stub 4 of the hub).

In view of the original illustration in Fig. 1, the Applicant respectfully requests reconsideration and withdrawal of the pending drawing objection.

2. The Claims Are Patentable Over Hamperl. The Applicant respectfully traverses the rejections based on Hamperl, on the ground that this reference fails to teach or suggest all of the features of the present invention recited in the pending claims, and these deficiencies are not cured by Iizuka.

As previously described, the invention recited in claim 1 includes, *inter alia*, a brake rotor comprising a hub portion, a friction portion, and a connection portion between the hub and friction portions which locates the friction portion outside the wheel envelope, and in particular, inboard of the wheel.

The Hamperl reference is cited as providing a brake rotor “having a connecting portion (4.4) which positions the rotor outside an envelope of the wheel.” September 14, 2005 Final Office Action at 3. The Applicants respectfully maintain that there is no disclosure or suggestion of the claimed arrangements which position a rotor outside the envelope of a wheel.

Hamperl is directed to a novel *hub* arrangement which permits a brake disc to be removed during brake service without first disassembling the entire hub and bearing assembly. Hamperl ¶ [0005] (“What is achieved [is], when the brake disc is being changed, there is no need to also remove the bearing arrangement.”).

Hamperl does not otherwise mention in the specification, or illustrate in Fig. 1, anything which would suggest to one of ordinary skill to locate a brake rotor at any location other than the prior art's usual location within the wheel envelope. In fact, as far as rotor location is concerned, Hamperl Fig. 1 teaches nothing more than a very conventional commercial vehicle dual-wheel arrangement, *i.e.* two wheel rim bolting flanges (outboard wheel flange 10.1 and adjacent unnumbered inboard wheel flange) placed face-to-face and bolted to the hub end. It is well known in the art that the inboard wheel of a conventional dual wheel axle end substantially envelopes the wheel brake – and it is exactly this prior art arrangement which is illustrated in Hamperl: an inboard wheel rim and hub arrangement that one of ordinary skill would recognize, given the scale of the illustrated components, extends well inboard of brake rotor 4.1. Hamperl Fig. 1 (inboard wheel rim inboard extent not illustrated, but readily apparent to one of ordinary skill in view of the relative sized of the hub end and the wheel rim bolting flange faces). Thus, unless impermissibly possessing knowledge of the present invention gleaned from the Applicant's disclosure, one of ordinary skill would not have discerned any suggestion of the present invention from Hamperl.

In view of the absence of any suggestion (let alone disclosure) in Hamperl of the concept of placing a brake disc friction portion outside the inboard wheel envelope, the Applicant respectfully submits that this reference fails to anticipate or render obvious the invention recited in the pending claims. The Iizuka reference,

cited for teaching mounting of a caliper on a vehicle axle, is similarly silent as to this feature, and therefore fails to cure Hamperl's deficiencies. Accordingly, the Applicant respectfully requests reconsideration and withdrawal of the §§ 102 and 103 rejections based on Hamperl.

CONCLUSION

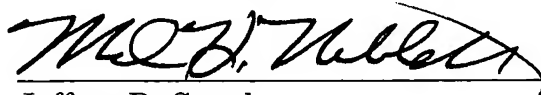
The Applicants respectfully request reconsideration of the pending objection and rejections, and issuance of a Notice of Allowance for claims 1-20.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #011351.52876US).

February 14, 2006

Respectfully submitted,



Jeffrey D. Sanok
Registration No. 32,169
Mark H. Neblett
Registration No. 42,028

CROWELL & MORING, LLP
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844